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Banking on New IT, Business and Operating Models

Our previous edition of Reflections received rave reviews, as well as reader input on additional challenges faced in the post “Great Recession” period. What you see before you is a collection of our best and brightest views on transformative strategies that financial services players should consider for creating new business models, a potent IT infrastructure and virtual and resilient operations that power new and more innovative ways of working and interacting with customers.

We kick off this issue with a look at regulatory overhaul and its impact on the future of financial services. As Dodd-Frank begins to take shape, we see new business and operating models emerging, as firms revisit IT and operations strategies from both a compliance and competitive perspective. For instance, we believe that firms planning CCP (central counterparty clearinghouse) services should rethink their business models and adopt new technologies to address more stringent clearing and risk requirements for derivatives trading. Doing so will require these firms to transform their client services model to ensure delivery of superior services.

In our view, highly collaborative and globalized sourcing and delivery models provide significant potential to reduce operating costs amid rising competition. We believe the industry needs partners that can provide a broad array of integrated and custom IT/BPO services, a delivery model that is part software as a service (SaaS) and part business process as a service (BPaaS). Embracing such partners will imbue asset management firms with new and lower-cost business capabilities gained through greater levels of service virtualization, delivered by specialists spanning the globe.

We also probe the growing influence of the millennial generation, mobility and social networking. These developments offer firms an ability to better understand consumer preferences and harness insights through an emerging category of social CRM tools. One clear imperative: Firms need to respond to changing retail transaction patterns. For instance, buying intent now happens much earlier and is influenced through social networking even in the brick-and-mortar world. Another epiphany is that customer experience across all channels of interaction is increasingly critical to selling, servicing and building customer relationships.

In this edition, we also share our views on how financial institutions can leverage virtual teams and collaborative tools, compliments of our recently published Cognizant/Economist Intelligence Unit survey.

Once again, we believe that Reflections is an important way for us to share our insights and maintain an ongoing dialogue with you. We appreciate your participation and feedback. Feel free to write to us at reflections@cognizant.com or to comment on any of these articles in our Banking Industry Pulse group within the Cognizanti ecommunity (http://cognizanti.cognizant.com).

Rao Peddada
Vice President, Banking & Financial Services Practice
Implications of Dodd-Frank for the U.S. Banking and Financial Services Industry

New and emerging rules portend major industry changes and challenges, requiring BFS organizations to revisit their strategic roadmap and rebuild their operations, processes and IT systems around compliance and competitiveness goals. Here’s a look at how to begin this process.

By Rao Peddada, Sudhir Gupta and Rajeshwer Chigullapalli

The Dodd-Frank Wall Street Reform and Consumer Protection Act will surely go down as the most expansive and expensive legislation ever in the annals of U.S. banking and financial services (BFS) history. The act is significant on several counts. Coming as it did against the backdrop of the meltdown of numerous financial institutions and subsequent government bailouts, Dodd-Frank aims to put in place a comprehensive regulatory system to prevent recurrence of such catastrophes and foster a transparent, healthy and safe financial system. The act extends to almost all BFS players (see Figure 1 and sidebar, page 6).

A 2,310-page tome that requires 353 rules to be written based on 68 studies through involvement of numerous agencies, Dodd-Frank dwarfs all its predecessors by a considerable degree (see Figures 2 and 3). Unlike past regulations, Dodd-Frank proposes vastly different timelines for implementation given the magnitude of its scope (see Figure 4).¹

The act focuses on five areas: systemic oversight, market structure, consumer and investor protection and shareholder ability to vote on executive pay. Given regulatory forces, BFS organizations should rethink their business strategy and develop new strategy roadmaps, organizational structures, processes and systems that not only meet the mandated compliance need but also lend new capabilities and competitiveness to face the realities of the new normal.
Industry Implications of Dodd-Frank

The potential impact of Dodd-Frank can be distilled to the following:

- Systemic oversight by a council of regulators.
- Prevention of “too-big-to-fail” firms and use of taxpayers’ money for bailouts.
- Living wills that require firms to have plans for orderly wind-ups.
- Prudent standards covering new capital, leverage and liquidity requirements for systemically important firms.
- The Collins Amendment, which extends present risk-based capital standards beyond insured depository institutions. The amendment also sets Basel I capital limits² as a floor for future standards.
- Concentration limits that inhibit the growth of any single organization beyond 10% of the national total of such liabilities.
- Risk governance at the board level.
- Consumer protection provisions that limit debit fees and severe restrictions on prevailing practices, such as pre-payment penalties.
- Market structure provisions aimed at bringing OTC derivatives trading to exchanges or centralized clearing and push-out of swaps.
- The Volcker Rule, which prohibits banks from proprietary trading and also restricts their investments in private equity and hedge funds to 3% of their Tier 1 capital.
- Securitized instrument issuers to be subject to retain 5% of the credit risk.
- Subjecting private equity and hedge funds (with more than $150 million of assets) to the scope of regulation.
- Imposition of fiduciary duty on broker dealers and investment advisers toward their retail consumers.

Key Provisions of the Dodd-Frank Act
Impact on various types of financial services companies

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<tr>
<th>Key Provisions</th>
<th>Financial Institution</th>
<th>Systemic Oversight</th>
<th>Volcker Rule</th>
<th>Derivatives Regulations</th>
<th>Capital Requirements</th>
<th>Consumer Protection</th>
<th>Investor Protection (Public companies)</th>
<th>Compensation &amp; Governance (Public companies)</th>
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<td>Large Banking Organizations</td>
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<td>Large Asset Managers</td>
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<td>Broker-Dealers</td>
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* If within a bank holding company or a savings and loan holding company.

Source: PricewaterhouseCoopers

Figure 1
Although Dodd-Frank’s scope extends to all players in the BFS space, its main targets are clearly the big banks and non-banking organizations that are deemed systemically important.

Over time, the act’s impact will put significant pressure on bank profitability and capital. Downward pressures on profitability are likely to emanate from the impact of regulations such as the Volcker Rule that prevent proprietary trading (see Figure 5), higher capital requirements, interchange fee limits and other moves aimed at consumer protection, reduced leverage (see Figure 6) and higher costs of compliance (see Figure 7).

Dodd-Frank’s attempt to target capital requirements means BFS organizations must reconcile demands from different areas to comply with the spirit of the act, such as the Collins Amendment, OTC dealer capital, counter-cyclical capital needs and higher standards for systemically important entities.

Implications for Strategy
While specific rule-making remains a work in progress, the act’s potential impact has been evident for some time now. Given the transformative nature of the regulations, BFS organizations would do well to begin by revisiting their business strategy to decide which areas of business their organizations will retain and which they will jettison to survive if not thrive in the compliance-driven future of the industry.

Pursuit of compliance efforts, coupled with moves to drive innovation across products, processes and services, is likely to build new competencies and opportunities.

While compliance is emerging as the key to survival, industry leaders must take advantage of new vistas that the act will facilitate. Pursuit of compliance efforts, coupled with moves to drive innovation across products, processes and services, is likely to build new competencies and opportunities.

To implement the sweeping transformational changes, organizations should take a holistic, enterprise-wide approach. For starters, financial institutions should create an exclusive regulatory project management office to steer the implementation agenda across the enterprise.

![The Exponential Growth of U.S. Financial Services Regulation](source: Economist Intelligence Unit)

Figure 2
An inevitable but benign fallout of the compliance agenda is the increasing prominence of risk management, which will foster safer and more financially secure BFS organizations (see Figures 8 and 9).

Implications for IT and Operations

Investment in IT is critical to implement compliance-driven changes in key systems, but it will also create greater efficiencies and support the development of new business capabilities. Research firm Ovum estimates that the IT spend of banks will increase by 4.5% in 2011 and opines that most of it will be directed at the Dodd-Frank-led changes. Standard & Poor forecasts the aggregated annual impact on the sector to be anywhere between $2.5 billion to $3 billion.

Searchable and scalable data management systems will be of paramount importance, and organizations should invest in enterprise-wide data and application architectures.

Although financial services has always been a highly regulated industry, BFS organizations have traditionally kept compliance activities separate from core business processes. Traditionally, the industry has also followed an incremental and piecemeal approach to implementing systems changes related to shifts in the regulatory winds. In fact, despite the long period of prosperity that preceded the meltdown, banks were loath to make investments in transforming their core systems.

Compliance with Dodd-Frank will require a scale of change never before seen in the industry. It will push banks to bring about enterprise-wide transformational change. That said, there appears to be no one-size-fits-all solution to Dodd-Frank. Each firm’s revised strategic roadmap will dictate the organizational, process and systems changes required.
The new regulatory regime orchestrated by the Financial Stability Oversight Council (FSOC), with the support of the Office of Financial Research (OFR), is likely to substantially increase industry reporting requirements. This will be a prime driver for enterprise-wide IT investments. Data integrity will be critical, and BFS organizations should seriously consider revamping systems to derive data from a single source of truth to ensure consistency and prevent errors that would subject them to punitive measures.

Searchable and scalable data management systems will be of paramount importance, and organizations should invest in enterprise-wide data and application architectures. New business models, and process changes that follow, will necessitate integrated data collection. Alongside these initiatives, efforts should also focus on enhancing the ability to understand customer profitability, risk management and all-around efficiencies. This would be enabled by sound data governance, addressing data quality issues and analytics.

New data collection routines and rebuilt systems should provide early warnings to caution firms against the risk of potential non-compliance. Alerts can also be set by BFS organizations to see if their investments in hedge funds and private equity firms are likely to exceed legally mandated levels. Real-time monitoring could also include areas such as counterparty risks, regulatory capital and margin limits and tracking of consumer fees.

Securities industry players, especially the private equity and hedge funds that are being subject to more stringent regulatory purview, will need to develop their systems anew to ensure they remain compliant with the new regulatory regime.

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**Timelines for Implementation**

*Maximum duration of implementation, cumulated, in months*

<table>
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<tr>
<th>Initiative</th>
<th>Duration (months)</th>
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Sources: Davis Polk (2010), DB Research

Figure 4
OTC derivative trading is one area that has remained archaic for many years, while systems of other business lines of BFS organizations moved forward by embracing more modern IT systems. The fact that the current OTC derivatives market poses substantial risk has become evident after the meltdown. The new market structure aspects of Dodd-Frank are, therefore, the major driver for IT investments. Exchange-based and centralized clearing needs have significant IT implications for buy-side firms spanning areas such as STP, record-keeping and end-user services (see related article, “Transforming the Client Services Model in the New OTC CCP Post-Trade Processing World,” page 14).

Margin and collateral management are also areas that are gaining traction. The post-trade area needs significant attention, as well, to address the long-felt need for enhancing efficiencies to remain compliant with new and emerging rules. Fiduciary standards require systems to ensure that the level of service is along mandated lines, to ward off potential conflicts of interest, enhance customer experience and extend market share.

While the BFS industry has become more globally integrated over the last few years (as evidenced by the contagion that spread worldwide following the U.S. subprime crisis), the absence of industry-wide data...
Responses to Recent Concerns Regarding Risk Governance

- Improved board risk reporting information
- Increased management risk committee reporting information
- Enhanced risk limits
- Updated risk appetite statement
- Reviewed management risk committee structure
- Developed risk dashboard report
- Held more frequent management risk committee meetings
- Updated management risk committee charters
- Expanded CRO responsibilities
- Established CRO position
- Reviewed board risk committee structure
- Reformed our risk culture to improve the effectiveness of risk oversight
- Established a risk committee of the board of directors
- Added management risk committee members with risk experience
- Added board members with risk experience
- Established management executive sessions with CRO
- Established board executive sessions with CRO
- Held more frequent board of directors' meetings

Percentages total more than 100% because respondents could make multiple selections.

Source: Deloitte
Figure 8

Priority of Improvements to Areas of a Company’s Risk Technology Capabilities in The Next 12 Months

- Risk information reporting
- Risk data quality and management
- Operational risk measurement system
- Enterprise-wide risk data warehouse development
- Specialized credit risk systems
- Liquidity risk management system
- Regulatory capital calculation and reporting
- Economic capital
- Specialized market risk systems
- Compliance management system
- Collateral management system
- Integrated market and credit risk measurement system
- Integration of risk and compliance systems

Survey conducted by Deloitte in 3Q 2010. Views of CROs or their equivalents from 131 financial services institutions around the world.

Source: Deloitte
Figure 9
standards is becoming increasingly visible. Work is underway by the Enterprise Data Management Council to close this gap. The council is taking the lead to develop taxonomies, financial instrument codes and other data identifiers. Adoption of these standards, as they evolve, will improve the maturity and efficacy of the industry’s systems.

The Road Ahead

As of May 2011, 62% of the rules in the Dodd-Frank Act are still in the making. This could either delay the implementation process or force banks and financial institutions to react more quickly. While compliance with the rules is far away, regulators expect banking and financial services organizations to implement road maps for compliance in the near term.

Following enactment of Dodd-Frank, the industry is likely to experience further consolidation, leaving fewer banks in its wake. As new regulatory measures are instituted, they will create a healthier and safer financial system. Dodd-Frank also heralds new opportunities for exchanges, clearing houses and private equity and hedge funds (likely beneficiaries of the Volcker Rule).

It is worth noting that passage of Dodd-Frank is an indication of the dawn of a new regulatory era. Organizations that seize the opportunity lying within the mandatory compliance imperative will have a better opportunity to strengthen their capital base and regain the trust of their key stakeholders — regulators, customers and shareholders.

Footnotes

¹ Transition periods, which enable market participants to prepare and adjust their operations to comply with new rules, as well as different transfer dates for the rules, can, in many cases, result in lengthy timelines for implementation.
² 8% of risk-weighted assets.

Bibliography


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Transforming the Client Services Model in the New OTC CCP Post-Trade Processing World

Although regulatory changes meant to address the recent financial crisis remain in flux, firms intending to offer clearing services need to remake their business models and adopt new technologies to address more stringent clearing and risk requirements for derivatives trading.

By Arun Iyer and Arunansu Ghose

The recent financial crisis was caused in part by the fundamental weakness of complex, hard-to-understand financial products such as derivatives. But the contagion that threatened to bring down the world financial system was not only a failure to understand the risk implications of these products; it also resulted from how those products were traded. Bilateral clearing of over-the-counter (OTC) transactions concentrated risk in too few players and made it difficult or impossible to quantify the level of risk faced by any trading party.

To prevent a recurrence, regulators are enacting measures to reform the OTC derivatives marketplace. Among the most significant is mandatory clearing, which eventually will require that most trades be cleared through central counterparty clearinghouses (CCPs), largely replacing the prime brokers that in the past assumed the risk for multiple transactions among multiple players. The thought process: Because CCPs are larger and more closely regulated, they will provide better risk and default management, reporting and controls, as well as the financial resources to better absorb the failure of a counterparty.

This change will force a shift in the business and operating models of almost all market participants. Dealers will see their existing margins from trading/market-making fall due to reduced spreads, forcing them to focus on alternate revenue streams such as post-trade services, including clearing through CCPs. Prime brokers will have to replace their high-margin intermediation model — where they acted as a
counterparty to both sides of an OTC trade – with an agency-based model, offering clearing services to buy-side firms on multiple CCPs. Newer entrants, such as custodians, futures commission merchants (FCMs), brokers and multilateral trading facilities (MTF), are likely to fill the void, while utility providers such as MarkitSERV will expand post-trade processing and other services to facilitate bilateral trades and provide buy-side firms with the accessibility required for direct clearing through CCPs.

Since buy-side firms will soon have an abundant choice in clearing service providers, they will demand high-quality service. Hence, only the clearing member firms that can make the transformational changes needed to provide superior client service will survive and thrive.

The Optimal Client Services Model

Buy-side firms will choose clearing partners that offer timely and accurate information, fast response times, reduced margin/collateral requirements on positions by netting and consistent streamlined processes. To meet these needs, clearing firms will need capabilities such as the following:

- **End-to-end processing**: Buy-side firms want a single source of service through the entire trade, from deal execution, through post-trade back-office processing and settlements.

- **Multi-servicing capability**: Larger buy-side clients will look for clearing members that can serve multiple asset classes, connect with multiple CCPs and address multiple geographies.

- **Continued support for bilateral clearing**: While most trades will go through CCPs, some complex derivatives will continue to be traded over-the-counter between individual firms. Clearing members that offer an integrated model for both exchange-traded and OTC clearing will have a larger client base from which to draw.

- **Consolidated view across multiple client touch points**: Many clients trade in multiple asset classes in different geographies, with multiple dealers clearing through various CCPs. They will want to work with clearing members that can provide a consolidated view of their trade status, positions, exposure, margins and collateral, regardless of asset class, geography or CCP.

- **Single point of contact (POC)**: Nothing irritates a client more than having to reach out to various contact points within a clearing member firm to satisfy its needs. The ability to provide a single POC that can quickly and effectively address all customer inquiries and requirements is essential.

- **Effective client on-boarding**: Clients will gravitate toward clearing firms that have the systems and processes to most quickly and cost-effectively on-board new clients and handle new asset classes.

- **Margin and collateral value-added services**: Since the margin requirements imposed by various CCPs will put an additional financial burden on buy-side firms, they will look to clearing entities that can manage and net collateral across asset classes and bilateral and CCP-eligible trades, thus providing these value-adds with cross-margining, margin financing, collateral substitution and related reporting services.

- **Comprehensive reporting**: Clearing firms will have to provide timely, accurate and integrated reporting across asset classes to their clients, regulators and their own management. Certain reporting must-have features include push and pull reporting with adequate drill-downs, ad hoc and customized on-demand reports and real-time alerts via SMS, e-mail and pop-up.

- **Transparency**: Buy-side firms want transparency in reporting and valuation of their positions and collaterals, including measures taken to protect collateral deposited with clearing firms. Though legislation is being enacted to address many of these transparency concerns, clearing firms still need to be more proactive in meeting these issues.
Strategy for Achieving the Optimal State

Business sponsors must first ensure they are aligned with the vision of top management and the overall enterprise strategy. For example, senior management may not plan to deal in all asset classes or all geographies. Clearing firms also need to determine targeted client segments and their pricing strategy. If the goal is to capture all categories of customers, a high-volume, low-margin strategy might be appropriate. If it is to target niche clients with specialized services, a premium pricing model might be called for.

Clearing firms that wish to prosper in this new market must also break down the organizational silos that have developed over time, so they can provide clients an integrated view of all their transactions.

Clearing firms that wish to prosper in this new market must also break down the organizational silos that have developed over time, so they can provide clients an integrated view of all their transactions. This may require a unification of operations covering multiple asset classes, multiple service offerings and multiple geographies within a single derivatives clearing organization in which the operations team learns multiple skills through enhanced training and job rotation. Such unification will enable the firm to deliver substantial operational efficiencies. For example, a single client on-boarding team will help reduce on-boarding time, prevent duplicate work and thus improve the customer experience. Similarly, a cross-asset collateral management and margining team will enable the clearing firm to offer cost-effective collateral management services to its clients.

IT staff must realign systems to support unified operations across asset classes, geographies and CCPs. This requires creating efficient and automated workflows for repeatable functions, such as client on-boarding, linking to a new clearinghouse, collateral management, trade capture and confirmations, settlements and accounting.

Given that regulations around central clearing will evolve over the next few years, establishing a “regulatory focus group” that comprises representatives from business, IT and operations will allow the firm to monitor regulatory reforms, fine-tune its strategy and make rapid course corrections.

Business managers must also carefully manage the transition to the new client service model. Many client service initiatives have failed because the firm failed to solicit customer feedback on changes to areas such as pricing, client on-boarding, margining and collateral mechanisms, etc. We recommend implementing the changes in stages, defining priority areas along with their associated timelines and budgets. Initial tactical, low-cost initiatives and their success in gaining client mindshare can help persuade management to approve further spending later on a broader level.
Technology

On the technology side, IT stakeholders should try to leverage and rationalize their existing infrastructure, reusing, consolidating and automating existing systems wherever possible. For example, existing connections to CCPs and middleware can be expanded for use with new asset classes. Existing workflows for bilateral clearing and exchange-traded products may be modified and merged to meet new requirements.

At the same time, the IT staff must realign systems to support unified operations across asset classes, geographies and CCPs. This requires creating efficient and automated workflows for repeatable functions, such as client on-boarding, linking to a new clearinghouse, collateral management, trade capture and confirmations, settlements and accounting. The costs of creating these workflows will be more than recovered in savings from lower error rates and higher productivity, as well as enhanced service levels for clients.

One area on which to focus investment is an integrated client-facing technology platform, or client portal, which can be a powerful tool to not only retain existing customers but attract new ones. This portal must provide a single window to allow clients to initiate and monitor all its interactions. Among the required features are:

- Real-time dashboards that can be personalized to allow clients to view the information most useful to them, including their trades, positions and exposures.
- Ability to initiate client on-boarding and view the latest status.
- Trade confirmation when industry utilities such as MarkitWire are not available.
- Cross-asset reporting with the ability to drill down or generate ad hoc, customer-specific queries.
- Analytics tools such as “what-if” scenarios for clearing through various CCPs or the impact of specific trades on the margins or collateral required.
- Integration exception management for workflows.
- The ability to initiate customer service requests in areas like collateral and margin management, settlements, billing and track to closure.

While client-side technology is extremely critical, equal attention must be paid to internal operations-facing technology. This requires seamless integration of the client portal with internal systems such as CRM and query management, workflow applications and core systems such as collateral management, risk and settlement.

The creation and maintenance of integrated databases for both reference and transactional data is critical to providing a single, unified view of transactions, for cross-margining and multi-asset reporting, cross-selling and upselling and for quickly adding asset classes or CCPs. Consolidating and eliminating redundant data also holds down storage costs and reduces the risk of errors. This can be done by integrating disparate databases into a single, unified, enterprise-wide database or by taking the feeds from various databases, cleansing the data and then loading this data into an enterprise-wide data warehouse. Firms will also need to focus on data governance to minimize data quality issues, which in turn will ensure better risk management and accurate regulatory reporting.

Firms seeking to become clearing members must also enhance their management information systems to improve reporting on trades and profitability per client, analysis of the profitability of various service offerings and the impact of pricing decisions. As with other reporting, this information must be provided not only across clients but also across asset classes and various products and services.
The need to easily connect to client and external systems and middleware operated by CCPs and utility providers (MarkitWire, ICE Link, etc.) requires adoption of and expertise with industry-standard messaging technologies and XML-based messaging standards. Without these skills, clearing firms will be unable to provide the fast, accurate and reliable trades across geographies and CCPs that clients demand.

**Integrating Planning and Action**

The move toward mandatory central clearing of OTC derivatives provides ample opportunity, as well as major challenges, for firms intending to provide CCP clearing services. In light of the intense competition, focus on how you can best serve all your clients’ needs across asset types, CCPs and geographies. Piecemeal changes may do more harm than good. Firms must transform their client servicing model from both an operations and technology perspective to ensure they can compete against both existing and new players.

Many of the specific regulations and requirements are just being announced but yet to be formally enacted, and the number and nature of firms seeking to play in this new environment are unknown. By building a flexible services-based platform and focusing on the availability and integrity of their critical data, clearing firms will be able to accommodate multiple asset classes and client types as they expand their service base to become “one-stop shops” for all their buy-side clients’ post-trade requirements.

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An Optimal Sourcing Model for Asset Managers

Global trends and a rich provider ecosystem are setting the stage for asset managers to reconsider their sourcing models for post-trade functions.

By Kirthi Ramakrishnan

Global sourcing is nothing new to asset managers. Over the years, once-core functions such as trade execution, custody, fund accounting and transfer agency have been carved out to service providers like brokers, asset services, custodians and other specialty players. However, as the functions grow closer to the front office, global sourcing has seen a slow road to adoption. Post-trade functions such as investment accounting, performance analytics, data management and reporting are as viable as any other outsourcing candidates. Yet, by the unofficial estimate of industry observers, these assets are outsourced at a rate of just 10% to 15% of assets under management, at most.

In this article, we will attempt to answer why this has been the case and why global trends will force all but the largest asset managers to seriously consider global sourcing in the near future. We will also highlight newer service providers that enrich the ecosystem and explore how firms can go about creating their global sourcing strategy.

Setting the Stage

For illustrative purposes, we will use a simplified model of the asset management value chain (see Figure 1). The model is process-centric and universal in the sense that every item (with local flavors) is present in all geographies and markets. It is not entity-centric in the sense that the composition of firms and regulatory agencies will vary widely across markets and geographies.

Generally, the support functions under the product – mainly fund accounting, administration, custody, etc. – have found satisfactory sourcing models, while investment and client administration have not had the same level of uptake. This can be attributed to four main reasons:

1. **T+0 is not T+1 or T+3**: Investment administration functions cater to the portfolio manager, who needs accurate and timely information on securities and positions for next-day trading. The level of intimacy, customization, control and urgency facilitated by an in-house model has been difficult to replicate by an outside entity.
2. **Lack of business architecture**: Being in an industry with wide variations in size, complexity and business drivers, most asset management firms do not have a good view of their “business architecture.” Many processes are sufficiently similar but with specific nuances, with neither attribute being truly appreciated. Business processes have to be viewed as a continuum, with shades of grey separating models for various functions. By taking an organizational/departmental view, the tendency is to outsource specific functions without due consideration for efficiency optimization or business flexibility. This is particularly striking in the sub-optimal model for shared services like data management and trade processing.

3. **The supply chain concept has been slow to mature**: For most global sourcing options, the default provider is the custodian/asset servicer (the prime broker in the case of hedge funds). While this is a perfectly logical and reliable source, a seamless supply chain to support the asset servicer has been slow to evolve. As a result, aside from some vendor-provided technology platforms, asset servicers have been internally over-burdened and lack the bandwidth to provide cutting-edge solutions and onboard clients in a quick and efficient manner.

4. **Economies of scale have not been demonstrated clearly**: In any industry, a compelling economic rationale to outsource is to lower costs. While risk reduction is always another driver, it is not as tangible or as compelling as cost reduction. Cost reduction is primarily a function of scale economies and labor arbitrage. The former is provided by better architecture and the latter by global sourcing. Neither has been particularly leveraged to this point, with the result being that some global sourcing deals have actually increased operations costs to the asset managers. One reason could be that the earliest such middle-office administration transactions were done with such large and complex asset managers, with highly customized operations and technology blueprints, that it was impossible to merge them on a common operating platform. While such transactions were performed for reasons of demonstrating scale and credibility, they did not serve as a good foundation for a utility model with decreasing marginal costs.
What Has Changed?

While it is still possible for asset managers to in-source a number of support functions, the world around them has undergone tumultuous change in the last two decades, following the collapse of the Soviet bloc and the free-market orientation of Eastern Europe, the BRICS nations and other closed economies across the developing world. In this section, we identify the trends that have been unleashed by these changes, how they affect the asset management business model and how compelling it is for asset managers to outsource all non-core functions.

1. Unprecedented level of globalization.
2. Continuing financial innovation.
3. Increased regulation, especially following the credit crisis.

As demonstrated in Figure 2, each of these macro trends has a profound impact on the asset management business model, with pointed implications for operations and technology.

The bottom line is that handling the complexity of a global operating model catering to a sophisticated client base is virtually impossible for any but the largest asset managers to handle internally. However, without a comprehensive strategy to isolate core, support and value-added functions and to harness the best of what the provider ecosystem offers, firms (especially small and mid-size) will not have the agility and cost control to tackle global competition.

![Figure 2](image-url)

Impact of Macro Trends

<table>
<thead>
<tr>
<th>Investment Strategy</th>
<th>Packaging &amp; Distribution</th>
<th>Client Servicing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manifestations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Search for true alpha</td>
<td>1. Product innovation (developed and developing markets)</td>
<td>1. Institutional market to shrink in developed markets</td>
</tr>
<tr>
<td>2. Global investment opportunities</td>
<td>2. Consolidation of distributors</td>
<td>2. Growth in private wealth management services</td>
</tr>
<tr>
<td>3. Focus on risk</td>
<td>3. Alternative investments (emphasis on SMA)</td>
<td>3. Scrutiny on suitability</td>
</tr>
<tr>
<td><strong>Implications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Complex asset class and trading strategies</td>
<td>1. Faster product launches in multiple markets</td>
<td>1. Increased reporting frequency</td>
</tr>
<tr>
<td>2. 24x7 global trading with multi-currency support</td>
<td>2. Increase in distribution costs</td>
<td>2. Increased customization and client responsiveness</td>
</tr>
</tbody>
</table>

While macro changes necessitate a strategic shift in sourcing functions, the problems in the prior section still need to be addressed. Fortunately, a supply chain to support the asset servicers is emerging. We will broadly group players in this supply chain under three categories:

1. **Custom IT/BPO providers**: These are the global service providers – a combination of traditional systems integrators and global sourcing giants. These firms are uniquely positioned in the ecosystem in other ways:
● They provide the bandwidth and business architecture expertise to carry out the business-IT transformation (consulting, sourcing strategy, conversion, change management) to an optimal sourcing model.

● They are providers to the large asset servicers, and the two are increasingly leveraging a joint value proposition on behalf of asset managers.

● They have partnerships with technology product vendors and can select, implement and support any in-house technology for the asset manager.

● Having been accustomed to customizing delivery and running large global sourcing shops of their own, they are better positioned to provide certain functions requiring a high-touch model – research support, trading desk support, client reporting and post-trade data management. Their flexible sourcing model ensures on-site resources in any corner of the globe. This will go a long way in catering to customized services and in allaying the T+0 problem.

2. Knowledge-intensive specialty shops: While this community has been around for some time, the scale and variety of providers for very niche areas is exploding. These firms provide sophisticated solutions for risk management, credit analysis and derivatives pricing, among others. In addition, specialty India-based equity and fixed-income research outfits to support portfolio managers provide excellent labor arbitrage.

3. Utilities: With advances in cloud computing, utilities are beginning to emerge, specifically in the areas of securities and counterparty reference data, post-trade data warehousing, corporate actions processing and post-execution transaction routing. With open architecture, it is conceivable, for instance, for the asset manager (trading) and the servicer (accounting) to operate off the same reference data cloud. This will ensure minimal reconciliation and may negate the need for an expensive in-house data management platform to cater to the front office and client support.

4. Applications service provider/hosting services: Finally, even for core insourced functions such as research and trading, the hosting, management and provisioning for the supporting technology platforms can be provided by any number of outside firms with their own global provider network.

With a combination of this additional supply chain and traditional asset servicers, brokers and custom IT/BPO providers, we can alleviate to a large extent the four traditional stumbling blocks to an optimal sourcing model, while at the same time catering to the challenges of a globalized business model.

A Protypical Example

A good example is a midsize asset manager ($50 billion assets under management) with a long-only U.S. equity strategy with limited derivative exposure. It has traditional 40-Act funds, some sub-advisory channels and a book of separately managed institutional accounts. The business was fairly static, and the firm was running most of its processes, applications and infrastructure in-house.

The firm was in expansion mode with a global mandate, an absolute return strategy and SICAV products for European clients.

The asset manager had two global trading desks with 18x6 coverage, a consolidated global book, fund accounting for Europe, reporting in multiple languages and multi-currency support, all at a time of increasing U.S. distribution costs.
Step 1: Current-state business architecture
Here, all processes in the firm are documented with their dependence on other processes. For each process, entities providing the business process, software platforms, infrastructure and governance responsibility are identified, and current costs calculated. Further, gaps in delivery are identified with respect to the new business model.

Figure 3 shows a high-level view of a limited set of business processes.

Step 2: Identification of sourcing candidates
Each process is categorized as one of the following:

- Core revenue-generating functions with high intellectual property to be insourced.
- Value-added defined as competitive differentiators, with intellectual property best provided by someone else (limited in-house expertise).
- Support functions with no differentiation best provided by a scale player.

Figure 4 identifies the categorization of such processes based on a combination of industry best practices and extensive management interviews. Such management interviews revealed preferences for categorizing some borderline functions, such as performance attribution, as core or value-added.
Step 3: Identification of service provider type

Normally, this is a multi-step process, starting with first identifying likely firm types, followed by the search process and ultimate actual selection of service provider(s). Figure 5 provides a summarized view of the end-state business architecture.

The first thing that emerges is that the supplier matrix in the new model is more complex than the existing model. This is currently still a challenge for asset managers, as the supply chain is not fully streamlined. They are forced to leverage the richness of services of multiple providers at the cost of managing multiple vendor relationships and ownership of end-to-end accountability, to some extent. We believe that the richness and complexity will not go away, but a single prime service model will emerge that will shield the complexity from the asset manager. Common sense will point to the service provider with the largest provider to be the prime servicer, which points to the asset servicer. However, it is also entirely feasible that the global IT/BPO providers can take on that role in specific cases, especially when there is a large in-house operations and technology footprint to be managed. Figure 6 illustrates the dynamic interactive nature of the processes and providers.
Choosing the Right Model

At the end of the day, choosing the right model is a blend of art and science. The following guidelines are useful in approaching the right solution.

1. Approach it with a long-term perspective.
   - Evaluate company culture and business model, as this affects all constituents (front office, operations, technology, client base).
   - Establish a governance model, with SLAs, risk, compliance and audit.
   - Clear idea of implementation roadmap.

2. Use an analytical framework/methodology to:
   - Identify processes and delivery models.
   - Evaluate tradeoffs, such as cost, expertise, responsiveness, risk.

3. Account for technical factors that play a crucial role, including:
   - Size: Assets under management, accounts, trading volumes, etc.
   - Asset class mix.
   - Level of globalization.

4. Models can differ by geography, function or line of business.
   - Take advantage of the multi-provider environment.
   - Evaluate every business line for key drivers.

Major attributes of a sourcing model are cost efficiency, business sophistication and client satisfaction. It is important to remember that it is not possible to optimize all of these. The type of sourcing model will have to vary for business lines, with differing weights for each of these attributes.

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Payments On-the-Go: Many Options, Much Opportunity

With the explosion in mobile payments, banks and other financial institutions have the opportunity to forge direct relationships with consumers through disintermediation and also reach the under-banked and unbanked segments. However, they need a coherent, multi-faceted mobile strategy that helps them prioritize investment decisions, including which device types to support and how to address thorny technology platform, security and regulatory issues.

By Hari Subramanian

Mobile phones that caught on primarily as instruments of voice communication in the late ‘90s have been transformed into multi-purpose devices that are essential for life and work. There were as many as 174 million smartphones worldwide by 2009; that number is forecast to grow to 1 billion by 2015.¹

Mobility is a cornerstone technology of the future of work. And that future, to a large degree, is now. Today’s young professionals — often called “millennials” — expect a high degree of mobile computing in their lives. Very soon, that will mean the convenience of being able to make payments and complete other financial transactions via the smartphone. According to recent research from In-Stat, there will be as many as 375 million mobile payment users worldwide by 2015.²

Mobile payment is any form of financial payment for a transaction made using a mobile phone. It may or may not involve the purchase of goods and services. Examples range from an individual paying bills on his smartphone, to an employee in a retail store checking out customers via an iPhone, to a retailer zapping coupons to customers while they are in the store (see Figure 1). Contactless payment is a fast-growing area in emerging markets, where consumers may not have bank accounts but have cell phones.

Disintermediation and Market Share Growth Opportunities

Against this backdrop of steady growth, mobile payments hold significant opportunity for financial institutions. Next to the Internet, mobility is the new catalyst for disintermediation in the payments value chain, as it offers the ability to forge a direct connection with the consumer. For example, money transfer operators who rely heavily on networks of agents for funds collection (from the sending consumer) and funds distribution (to the receiving consumer) have found new ways to provide P2P (person-to-person) services using mobile money transfer.
<table>
<thead>
<tr>
<th>Mobile Payment Type</th>
<th>Description</th>
<th>Current State</th>
<th>Likely Future State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile bill payments and remittances</td>
<td>Consumer-to-business payments.</td>
<td>New applications are emerging but are not yet as popular as online bill payments.</td>
<td>Mobile bill payments and remittances, as well as related alerts, will be pervasive within retail banking and lending.</td>
</tr>
<tr>
<td>Mobile person-to-person remittances</td>
<td>Money transfers.</td>
<td>The World Bank estimates that global cross-border payments (created for emerging markets) were at $305 billion as of 2008. 3 Primarily, such services use wireless application protocol (WAP) or SMS for mobile money transfers.</td>
<td>Although WAP and SMS are likely to exist in the future, an increasing proportion of emerging market consumers are likely to adopt smartphone-based applications for mobile remittances by 2015.</td>
</tr>
<tr>
<td>Mobile reward redemption</td>
<td>Ability to use rewards points as an equivalent of cash to pay for goods.</td>
<td>This is an emerging area; a few mid-size U.S. banks and a large credit card services provider are experimenting with it.</td>
<td>Mobile rewards redemption for any type of purchase at POS terminals will be widespread. Acquirers will settle credit card transactions with merchants while issuers will debit equivalent reward points.</td>
</tr>
<tr>
<td>Contactless payments</td>
<td>Use of Near-Frequency Communications (NFC)-based phones/tags/wristbands to make payments at NFC-enabled POS terminals.</td>
<td>Several large players, including Citi, Visa and Bank of America, are conducting NFC-based trials around the world. An NFC trial conducted by Citi Bank in Bangalore, India, during March 2010 found that consumers conduct six times more transactions using contactless methods. 4</td>
<td>NFC-based contactless payments are likely to gain momentum in Europe, as EMV standards and certifications for smart cards are in place already and can be leveraged for NFC. However, it is unlikely to gain momentum in other parts of the world. Note the recent withdrawal of major U.S. carriers.</td>
</tr>
<tr>
<td>Contactless payments (non-NFC)</td>
<td>Suitable for developing markets, as unbanked mobile consumers can pay using pre-paid/post-paid accounts. Also useful for SMS confirmations.</td>
<td>Use of mobile phones for payments is gaining popularity in developing countries. Regulators have taken note of this trend. For example, the Reserve Bank of India (RBI) recently ruled that wireless carriers can hold up to INR 5,000 in escrow against mobile phone payments. 5</td>
<td>With unique IDs such as MMID (Mobile Money Transfer Identifier) of India, emerging market consumers will use mobile phones as debit cards to pay from pre-paid accounts for micro payments. Applications will support a combination of smartphone and SMS technologies.</td>
</tr>
<tr>
<td>Mobile POS terminals for small merchants</td>
<td>Field merchants (i.e., plumbers and electricians) can use a mobile phone as a POS terminal to accept credit card payments.</td>
<td>Some well-known companies, including Intuit and Barclays, have released such solutions. There are applications available at the Apple App store, as well. Some are meant for specific merchant services, while others allow the user to configure any merchant gateway/account.</td>
<td>Mobile POS terminals are likely to reach the saturation point in developed areas. A primary barrier for adoption is likely to be field merchant concerns related to fees.</td>
</tr>
<tr>
<td>Mobile POS terminals for consumers</td>
<td>Use of a mobile phone as a POS terminal to scan items (using camera) and check out (without queues).</td>
<td>This is an emerging area of popularity among retailers, according to an IHL Group report. 6 Specialty retailers Apple, Barnes &amp; Noble, Victoria’s Secret and Urban Outfitters have equipped salespeople with iPads/iPhones for checkout to eliminate POS terminals and queues.</td>
<td>Non-NFC versions of this payment application are likely to gain significant momentum in developed markets as they offer significant cost savings in capital and operations costs related to POS terminals for retailers.</td>
</tr>
</tbody>
</table>
Financial institutions can create customized payment applications as valuable services for their partners, as well as consumers, by exposing a set of payment services through the mobile Internet in a secure manner. This allows the financial institution to focus on its core competency of payment processing while facilitating innovation in how the payment function is integrated into myriads of business use cases related to mobile commerce. That, in turn, allows for proliferation of mobile payment applications while enabling the financial institution to pursue an “ABC Company’s payment processing inside” strategy, similar to the “Intel Inside” strategy successfully adopted by Intel to gain market share for its CPUs within computer hardware.

For financial institutions, mobile payments are also the first point of entry to get closer to the underbanked and unbanked consumers in emerging markets. Many of the citizens in emerging markets don’t have PCs, Internet connections, e-mail accounts or even bank accounts, but they do have cell phones, almost universally. Typically these consumer segments start using money transfer services for cross-border remittances and as they work hard and establish themselves, end up as loyal customers for other banking and lending services.

For financial institutions that have not yet jumped on the mobile payment bandwagon, the time is now to develop a coherent, multi-faceted strategy. The scope of mobile payments is vast, as are the opportunities; you won’t be able to invest in everything. From a technical standpoint, there are crucial decisions to be made related to the device types you will support, as well as the technology platform of choice that minimizes total cost of ownership while maximizing end user experience. And there are significant security and regulatory issues that must be addressed, as well.

**Mobile Payment Trends**

All types of mobile payments mentioned in the previous section are still evolving, with almost daily developments and announcements from players. Financial institutions are faced with the challenge of picking winning combinations of mobile payment capabilities while resolving other technology and regulatory hurdles. To help you track this fast-changing sector of mobile commerce, we have developed a set of radars that will help you understand emerging technologies and business capabilities.

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![Figure 2](http://cognizant.com)

* Banked consumers

** Carrier-sponsored payments, unbanked consumers

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**LEGEND**

- Size of Business Opportunity/Impact for BFS Organizations:
  - Small
  - Medium
  - Large

- Nature of Impact on BFS Organization’s Business:
  - Financial
  - Market Reach
These radars track the timing and extent of business impact they are likely to have on your business fundamentals. Timing of trends is classified as emerging, adolescent, and early mainstream. Mainstream trends are not captured in the radar, as they are commonplace already. The extent of impact on your business is characterized by the size of the bubbles that represent the trends (small, medium, large impact), and the nature of the impact is characterized as financial (revenue growth or cost reduction) and market differentiation or customer satisfaction.

We plan to continue tracking developments in this and other related sectors and publish periodic updates to these radars. Figure 2 on the previous page depicts the radar related to emerging business capabilities in consumer financial services in general and mobile payments in particular.

The addition of integrated mobile commerce applications enriches the customer experience by providing an even greater level of convenience. The leading mobile commerce developments we are tracking include the following:

- **m-Wallets.** These are hardware- and software-based identity solutions that retain encrypted card and cardholder-related information. Hardware-based solutions can also house an NFC antenna to transform an ordinary mobile phone into an NFC-compatible device. Data encryption and device management (the ability to wipe out device data in case of theft/loss) are essential.

- **Mobile payment APIs.** These are Web services for payment processing that are exposed by financial institutions. E-commerce partners and third-party application developers can use these APIs to craft novel mobile payment applications. We are seeing an increasing level of interest from several financial institutions in this area. Technology-related concerns regarding performance still prevail, with some adopting JSON-based APIs instead of SOAP-based services. (JSON, or JavaScript Object Notation, is a lightweight protocol alternative to SOAP, or Simple Object Access Protocol, an XML-based messaging protocol frequently associated with Web services.)

- **Mobile coupons** (consumer preference-based or location-based). These appeal to merchants as well as manufacturers, banks, card issuers and acquirers, as they improve

### NFC Trials Around the World

<table>
<thead>
<tr>
<th>Trial</th>
<th>Sponsor</th>
<th>Other Players</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>Maxis</td>
<td>Maybank, Visa payWave, Touch N’ Go Systems, Inc.</td>
<td>Contactless payment solution for mass transit and merchants with Visa payWave terminals. Cognizant was involved in this NFC project.</td>
</tr>
<tr>
<td>New York City</td>
<td>Visa</td>
<td>Bank of America</td>
<td>Payments trial in N.Y. at select merchant locations.</td>
</tr>
<tr>
<td>Ireland</td>
<td>AIB Merchant Services (joint venture between First Data Corp. and Allied Irish Banks)</td>
<td>ZAPA Technology Ltd. (contactless payment technology provider)</td>
<td>This is an emerging area; a few mid-size U.S. banks and a large credit card services provider are experimenting with it.</td>
</tr>
<tr>
<td>U.S. Carriers</td>
<td>Joint venture between AT&amp;T, Verizon, T-Mobile</td>
<td>Barclays, Discover</td>
<td>Effort by large U.S. carriers to position themselves in the mobile payments landscape.</td>
</tr>
<tr>
<td>India (Citi Tap and Pay)</td>
<td>Citi</td>
<td>―</td>
<td>NFC-based contactless payment trial – 3,000 consumers, 250 merchants, 50,000 transactions.</td>
</tr>
</tbody>
</table>

Figure 3
redemption rates. Borrell Associates estimates the market for mobile coupons was $2.7 billion in 2009 but will grow to $57 billion by 2014. Of the 91% of U.S. adults who own a cell phone, 10% use them once a week for location-based services. That number is much higher for iPhone users (63%). More than half of mobile phone users take action on when they are presented, according to a Mobile Marketing Association/Luth Research survey. Retailers can send specific coupons to a customer’s smartphone, depending on where the person is in the store – a coupon for laundry detergent, for example, when the person is browsing in the household cleaners aisle.

- **Mobile e-receipts.** A leading UK-based bank has reportedly laid out plans to leverage cloud technology to disperse e-receipts to mobile phones for contactless transactions. E-receipts that reduce paper costs can be a vital component of a mobile POS application (as depicted in Figure 2). After using a mobile phone to complete the purchase of goods, the retailer or partner facilitating the mobile payment sends an image of the receipt to the mobile phone, complete with barcode and the items purchased. This barcode is not only convenient, but it also serves to verify the authenticity of purchases when the consumer leaves the store or comes back to return any of her purchases.

### Challenges in Mobile Payments

#### Partnerships Among Players

The evolution of mobile payments in the consumer space can be best understood by examining the challenges faced by m-wallet developers. While many players large and small are developing mobile payment applications leveraging m-wallets, a remaining question is whether those m-wallets will host cards from one issuer and one network or multiple issuers and multiple networks. For a consumer, it is simple to slip a credit card from any issuer into their wallet, but it is not quite that simple if they carry an m-wallet.

#### Support for Multiple Devices

Typically, mobile applications are developed as mobile browser applications (in which the application runs on a mobile Web server, and devices access it through a browser, such as Safari) or as thick-client applications (in which the code is optimized for each device). To reach critical mass, mobile payment must be ubiquitously available on all devices. Fortunately, there are both open source and commercial solutions available to enable

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**Figure 4**

**Overcoming Mobile Payments Hurdles**

- **Easy to Manage**
  - Design for optimal user experience.

- **Manageable Complexity**
  - Develop, test and support applications on multiple device platforms.
  - Back-end enterprise system and interface restrictions and systems.
  - Ability to control damage when devices are stolen/lost.

- **Difficult to Manage**
  - Overcome security concerns of consumers.
  - Prevent fraud.
  - Establish partnerships with other players.
  - Comply with anti-money-laundering (AML) regulations in various countries.
the deployment of applications on multiple devices using a single code base. “Write once, deploy anywhere” is the mantra for all these solutions, and many live up to this spirit, to varying degrees.

Until recently, enhanced user experience has been possible only by using thick-client applications; mobile browser applications have paled in comparison. However, recent developments such as HTML5 have the potential to challenge the status quo in mobile application development. HTML5 offers the ability to incorporate interactive graphics (for signatures in the browser itself) and use of local device databases, all of which can be accessed from the browser. Although HTML5 is not yet a standard, popular devices such as the iPhone, iPad, Android and Blackberry Torch support it.

While many players large and small are developing mobile payment applications leveraging m-wallets, a remaining question is whether those m-wallets will host cards from one issuer and one network or multiple issuers and multiple networks.

Data Security
This is an extremely critical aspect of mobile payments, as there is a need to secure data in the device, data in transit and data on the server. While securing data in transit and on the server are well understood, security in the device is still evolving. Encryption keys can be used to encrypt contents in the device database. However, the key can’t be stored in the device or be part of the HTML5 or JavaScript source, as this represents a potential security gap. As a result, techniques such as regenerated keys (based on login credentials) or server-supplied on-demand keys need to be employed. It is also important to avoid storing sensitive information such as actual card numbers, CVV codes, PINs, etc. on the device. Another approach is to use pseudo account numbers that map to actual credit card numbers stored on the server.

HTML5 offers the ability to incorporate interactive graphics (for signatures in the browser itself) and use of local device databases, all of which can be accessed from the browser.

Fraud in mobile payments is a major obstacle to its adoption by consumers. Security mechanisms such as multifactor authentication must be a standard in the design of mobile payment applications. Typically, multifactor authentication relies on matching the device identity with that of the user, as well as verification of other security factors that the user must remember.

Looking Ahead
There are several decisions for BFS institutions to consider related to technology choice, application capabilities, middle/back-office interfaces, regulatory compliance and security and fraud prevention, while formulating their mobile payment roadmap. To achieve a multi-faceted mobile strategy, financial institutions should consider the following initiatives that can be customized to their specific context:

- Consider segmenting the type of consumers you want to address in great detail.
  It is important to take a global view of your business and consider all the markets where you have and will have operations. Defining narrow segments with as much precision as
possible will lead to clarity in the proprietary mobile device platforms to be supported and a sound roadmap for mobile payment applications.

- **Financial institutions should pay particular attention to developments in regulatory standards in the markets in which they want to operate.** Not all markets are evolving at the same rate. While lagging behind China in mobile infrastructure, India seems to have taken the lead in regulations related to mobile payments. Similarly, significant differences exist among various countries in AML (anti-money laundering) regulations.

- **Depending on the type of mobile payment services they want to offer, financial institutions need to form the right ecosystem by assembling suitable partners.**

- **Although mobile devices are proliferating, there are still significant differences in the rate of mobile device adoption and type of devices being adopted around the world.** While emerging markets significantly lag developed markets in the widespread availability of mobile Internet and smartphones, they are catching up fast, with some markets leapfrogging developed markets as they don’t have legacy mobile networks to deal with.

- **Mobile Web offers the lowest possible total cost of ownership with acceptable user experience. However, it has serious limitations if special device features such as a camera are to be used by the application.** While native applications offer the potential to leverage unique device features, they increase the total cost of ownership due to the need to support multiple dominant devices in the market. We see IT departments expressing a preference for common denominator application features using mobile Web technology, while business stakeholders prefer native client applications for superior end user experience. Depending on the mix of business capabilities to be supported for mobile payments, business and IT departments should cooperate to set standard technology platforms, as well as devices to be supported.

- **Financial institutions should follow clear and elaborate security standards and best practices to prevent vulnerabilities in applications by specifying internal standards to which applications should adhere.** For this purpose, we are creating a security framework for mobile applications that can be leveraged by financial institutions.

The “always-connected” millennials have come to expect virtually everything delivered to them via mobile apps, and payments are no exception. It is important for financial institutions to get their mobile strategy right while minimizing platform operations costs and forging direct relationships with their future customers.

**Footnotes**


Hari Subramanian is the Technology Partner for one of the strategic business units within Cognizant Banking and Financial Services (BFS). He is responsible for providing technology consulting and solution architecture services to the BFS industry. His mission is to promote technology and thought leadership within our company and to leverage this insight for delivering innovative solutions in areas such as mobility, SOA, enterprise architecture, cloud computing and user experience. He has more than 22 years of experience in both the communications and BFS sectors. Hari can be reached at Harir.Subramanian@cognizant.com.
Not Yet Banking on Virtual Teams and Collaborative Tools

Relative to other industries, financial services firms are belatedly embracing virtually collaborative ways of working – and then, only when they have to. But those that adopt this new way of working say they achieve greater levels of productivity and innovation.

By Edward Merchant and Gabriel Schild

A recent study conducted by Cognizant with the Economist Intelligence Unit illustrates the significant increase in productivity and innovation – as well as the talent recruitment and retention advantages – achieved by companies that make collaborative tools available to their emerging virtual teams.

Before discussing the results of this study, some definitions are in order. Virtual teams, in our view, typically comprise resources whose skill sets, knowledge and experience best suit them for tackling a particular problem, whether it’s managing a knowledge-intensive professional challenge or executing a work project. These resources are often not located in the same department, office building, country or time zone. Virtual teams cross boundaries, hierarchies, language skills and cultural makeup. Tools that fit the collaboration category include videoconferencing, Microsoft SharePoint servers, online meeting tools, business process management software and workplace-specific social media.

Among our 400-plus study respondents, 36% of companies that have invested time, effort and funds in developing a more virtual and collaborative way of working report that they enjoy measurable benefits today or expect benefits within the next six months. A majority of these companies see a leading role for the CIO and/or IT in pioneering and implementing virtual teams. However, according to survey respondents, many do not yet see a direct link between the success of using virtual teams and financial gains.

When it comes to working virtually, however, just over one-fifth of financial services (FS) industry respondents claim they are early adopters. Professional services and IT respondents score much higher, at 50% or more. Only 11% of FS respondents feel that collaborative work is a core competency of their organization, which is the lowest score among all groups of respondents except healthcare and life sciences. About 30% of FS respondents claim that collaboration in their organization only occurs when necessary, is focused mainly on working with external stakeholders and does not have or warrant a specific strategy (see Figure 1).
Nevertheless, of those FS respondents who do see value in virtual teams working with collaborative tools, 75% claim a (significant) positive impact on productivity and innovation. Approximately half of these respondents also see similar impacts for recruitment and retention. The 30% of FS respondents for whom virtual teaming and collaborative tools are not (yet) a main strategy provide similar answers when asked about the potential for their implementation.

Virtual Teaming Benefits Are Compelling for Certain Functions

To understand why a large percentage of players see virtue in virtual collaboration despite the industry’s belated start, you must look under the surface. According to the survey, some of the main obstacles to implementing a more virtual work environment in the FS sector are found in cultural resistance to changing traditional working methods, implementation costs and data security concerns. The traditional bank’s organizational and infrastructure makeup partly explains this contradiction between ambition and reality. For example:

- Front-, middle- and back-office functions are componentized and departmentalized. There is often limited and sometimes almost hostile interaction between the various parts of a bank’s value chain, which discourages collaborative work and makes virtual teaming next to impossible.
- The IT function of most banks is organized centrally and operates separately from the rest of the organization. As a “shop within the shop,” IT in many banks cannot play a leading role in introducing and facilitating virtual teamwork and tools.
- The average IT infrastructure at financial services companies is typically disparate, fragmented and rigid. Deploying virtual working tools such as business process management software, office-focused social media tools or mobile computing is not easily done.

Working Together: A Work in Progress

Which statement best describes your organization’s strategy with regard to collaboration?

<table>
<thead>
<tr>
<th>It is a core competency of my organization</th>
<th>Financial services</th>
<th>Healthcare, pharmaceuticals and biotechnology</th>
<th>IT and technology</th>
<th>Manufacturing</th>
<th>Professional services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Total</td>
<td>Total</td>
<td>Total</td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>73</td>
<td>18.2%</td>
<td>10 11.0%</td>
<td>4 10.5%</td>
<td>24 38.7%</td>
<td>4 12.9% 13 31.0%</td>
</tr>
<tr>
<td>114</td>
<td>28.4%</td>
<td>30 33.0%</td>
<td>14 38.8%</td>
<td>15 24.2%</td>
<td>9 29% 11 26.2%</td>
</tr>
<tr>
<td>93</td>
<td>23.1%</td>
<td>24 26.4%</td>
<td>11 28.9%</td>
<td>12 19.4%</td>
<td>5 16.1% 5 11.9%</td>
</tr>
<tr>
<td>62</td>
<td>15.4%</td>
<td>15 16.5%</td>
<td>4 10.5%</td>
<td>7 11.3%</td>
<td>4 12.9% 7 16.7%</td>
</tr>
<tr>
<td>14</td>
<td>3.5%</td>
<td>2 2.2%</td>
<td>2 5.3%</td>
<td>1 1.6%</td>
<td>2 6.5% 2 4.8%</td>
</tr>
<tr>
<td>36</td>
<td>9%</td>
<td>7 7.7%</td>
<td>3 7.9%</td>
<td>3 4.8%</td>
<td>5 16.1% 2 4.8%</td>
</tr>
<tr>
<td>10</td>
<td>2.5%</td>
<td>3 3.3%</td>
<td>0 0%</td>
<td>0 0%</td>
<td>2 6.5% 2 4.8%</td>
</tr>
<tr>
<td>402</td>
<td>100%</td>
<td>91 100%</td>
<td>38 100%</td>
<td>62 100%*</td>
<td>31 100% 42 100%*</td>
</tr>
</tbody>
</table>

*Percent do not add up to 100% due to rounding.

Source: Cognizant/Economist Intelligence Unit Survey, May 2010

Figure 1
In addition, the absence of a direct link between virtual teamwork and the bottom line means there is not necessarily an economic incentive for financial services companies to engage in virtual teaming experiments. But what are the opportunity costs of doing nothing? Which specific operational areas in the financial services sector stand to benefit from a more collaborative approach to work? There are some data points in the survey (supported by related research initiatives) that can help answer these questions and reinforce the three overarching benefits enjoyed by early adopters of virtual teamwork (increased productivity, improved talent management and more rapid and effective innovation):

### Operational losses:
According to one study, 50% of all losses in the hedge fund industry are the result of operational errors made in the back office (The Capital Markets Company, 2003). Another study, which focused on operational losses in the insurance industry, demonstrates that people-intensive business functions, such as customer service/policy administration and claims, are strongly associated with smaller losses, other things being equal (Selvaggi, 2009). These operational losses are not an isolated phenomenon: According to yet another study, there is a strong, statistically significant negative stock price reaction to announcements of operational loss events for many financial services companies in the U.S. (J. David Cummins, 2008).

### Talent management:
To attract millennial employees to their ranks, financial services companies must focus on this generation’s core values: flexibility, balance, respect and accessibility (Sampath, 2006). According to another study, “Financial services organizations now rank HR and people risk (talent recruitment, retention, etc.) among the top-10 potential

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### Creating the Invisible Workplace

What is your organization’s strategy with regard to creating a virtual work environment?

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Total</th>
<th>Financial services</th>
<th>Healthcare, pharmaceuticals and biotechnology</th>
<th>IT and technology</th>
<th>Manufacturing</th>
<th>Professional services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has been an early adopter</td>
<td>113</td>
<td>28.2%</td>
<td>20 22.0%</td>
<td>8 21.1%</td>
<td>32 51.6%</td>
<td>3 9.7%</td>
</tr>
<tr>
<td>Is beginning to implement a broad initiative</td>
<td>71</td>
<td>17.7%</td>
<td>22 24.2%</td>
<td>8 21.1%</td>
<td>8 12.9%</td>
<td>4 12.9%</td>
</tr>
<tr>
<td>Is beginning a limited trial</td>
<td>79</td>
<td>19.7%</td>
<td>20 22.0%</td>
<td>10 26.3%</td>
<td>7 11.3%</td>
<td>5 16.1%</td>
</tr>
<tr>
<td>Is analyzing the need and opportunity</td>
<td>64</td>
<td>15.9%</td>
<td>11 12.1%</td>
<td>7 18.4%</td>
<td>10 16.1%</td>
<td>8 29.0%</td>
</tr>
<tr>
<td>Has halted or abandoned efforts</td>
<td>7</td>
<td>1.7%</td>
<td>1 1.1%</td>
<td>1 2.6%</td>
<td>0 0.0%</td>
<td>1 3.2%</td>
</tr>
<tr>
<td>Has neither a strategy nor plans to create one</td>
<td>54</td>
<td>13.4%</td>
<td>14 15.4%</td>
<td>4 10.5%</td>
<td>4 6.5%</td>
<td>6 19.4%</td>
</tr>
<tr>
<td>Don’t know/Not applicable</td>
<td>14</td>
<td>3.5%</td>
<td>3 3.3%</td>
<td>0 0.0%</td>
<td>1 0.0%</td>
<td>3 9.7%</td>
</tr>
<tr>
<td>Total</td>
<td>402</td>
<td>100%</td>
<td>91 100%</td>
<td>38 100%</td>
<td>62 100%</td>
<td>31 100%</td>
</tr>
</tbody>
</table>

* Percents do not add up to 100% due to rounding.

Source: Cognizant/Economist Intelligence Unit Survey, May 2010

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Some of the main obstacles to implementing a more virtual work environment in the FS sector are found in cultural resistance to changing traditional working methods, implementation costs and data security concerns.

- **Operational losses:** The presence of an early adopter 113 28.2% 20 22.0% 8 21.1% 32 51.6% 3 9.7% 18 342.9% Is beginning to implement a broad initiative 71 17.7% 22 24.2% 8 21.1% 8 12.9% 4 12.9% 11 26.2% Is beginning a limited trial 79 19.7% 20 22.0% 10 26.3% 7 11.3% 5 16.1% 6 14.3% Is analyzing the need and opportunity 64 15.9% 11 12.1% 7 18.4% 10 16.1% 8 29.0% 3 7.1% Has halted or abandoned efforts 7 1.7% 1 1.1% 1 2.6% 0 0.0% 1 3.2% 0 0.0% Has neither a strategy nor plans to create one 54 13.4% 14 15.4% 4 10.5% 4 6.5% 6 19.4% 1 2.4% Don’t know/Not applicable 14 3.5% 3 3.3% 0 0.0% 1 0.0% 3 9.7% 3 7.1% Total 402 100% 91 100% 38 100% 62 100% 31 100% 42 100% *Percents do not add up to 100% due to rounding. Source: Cognizant/Economist Intelligence Unit Survey, May 2010 Figure 2

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In addition, the absence of a direct link between virtual teamwork and the bottom line means there is not necessarily an economic incentive for financial services companies to engage in virtual teaming experiments. But what are the opportunity costs of doing nothing? Which specific operational areas in the financial services sector stand to benefit from a more collaborative approach to work? There are some data points in the survey (supported by related research initiatives) that can help answer these questions and reinforce the three overarching benefits enjoyed by early adopters of virtual teamwork (increased productivity, improved talent management and more rapid and effective innovation):
threats to their earnings” (PWC, 2007). Whereas attracting and hiring millennial workers in an increasingly tighter financial services job market is crucial, retention may be even more important: Cost estimates to replace key banking talent that has departed the company range from 150% to 200% of the ex-employee’s annual salary (O’Gorman, 2010).

- **Ability to innovate**: Enabling successful innovation is and will be a key competitive differentiator for the financial services industry (McKinsey Quarterly, 2007). Increasing competition and ongoing consolidation are the main reasons why financial services providers need to continuously innovate to stay relevant and profitable. This innovation needs to be structured, well-organized and steered from the top in order to generate a solid return on investment. Only 62% of innovation projects launched in the financial services industry are successful, leaving ample room for improvement. Organizations with well-developed systematic innovation processes have greater success (Edgett, 2009).

From these data points, it becomes clear that there are three essential ingredients for financial services companies to be profitable and grow their business: prevention of operational losses, effective talent management and structured ways of driving innovation. The key pay-offs for successfully deploying virtual teams and collaborative tools as measured by our study (e.g., significant increases in productivity, talent management and innovation) are, hence, opportunity costs that banks will incur if they do not adopt a more collaborative way of working supported by virtual teams. Given paltry adoption rates and its substandard status as a core competency, the issue for banks is how to make a quick and successful start in pushing forward with virtual teaming and collaborative tools. The opportunity cost of not doing so is huge, as demonstrated by these examples:

**Corporate actions processing in the investment management, fund accounting and securities services industry**: Due to an ever-changing array of options and events, human errors in these difficult-to-automate functions can have a massive and costly impact on fund operations and net asset value. These errors are often based on a lack of knowledge, information, understanding or adequate communication between different back-office function(s) and teams.

**Loan origination and servicing in the corporate banking and retail banking business**: Although the various process steps for these functions are relatively straightforward, in many banks there are still three to four different business units involved

**Given the paltry adoption rates of virtual collaboration and its substandard status as a core competency, the issue for banks is how to make a quick and successful start in pushing forward with virtual teaming and collaborative tools.**

**Moving Forward with Virtual Teaming and Collaborative Tools**

Despite their relatively low adoption rates and inherent cultural and corporate resistance to more collaborative operating models, it is our view that the majority of present-day financial services providers will benefit tremendously from employing 21st century teaming and work tools. Operational areas that resist automation, and hence are prone to human interaction with the risk of costly errors and mistakes, stand to gain most from a rapid introduction to this new way of working. The opportunity cost of not doing so is huge, as demonstrated by these examples:

- **Corporate actions processing in the investment management, fund accounting and securities services industry**: Due to an ever-changing array of options and events, human errors in these difficult-to-automate functions can have a massive and costly impact on fund operations and net asset value. These errors are often based on a lack of knowledge, information, understanding or adequate communication between different back-office function(s) and teams.

- **Loan origination and servicing in the corporate banking and retail banking business**: Although the various process steps for these functions are relatively straightforward, in many banks there are still three to four different business units involved
in executing them, leaving ample room for delays and mistakes. These mistakes can be pricey and will almost certainly be damaging to a bank’s reputation in the marketplace.

- **Account reconciliation in the payments processing and financial markets functions**: Often a mind-numbing exercise of Rubik’s Cube proportions, this function involves interaction between various parts of the bank’s operational areas around the country or the world. Trying to find a home for unallocated amounts of money or securities that are above a certain threshold often results in endless e-mail chains, phone calls, conference-call sessions and the like, reducing productivity, efficiency and employee morale.

These are but three operational areas where virtual teaming and collaborative tools will make a major difference directly translatable to lower opportunity costs. In each of these cases, people currently resolve issues by augmenting well-recognized processes with informal relationship networks both inside and outside the organization. Individual productivity levels are, therefore, dictated by the quality of their network (in terms of knowledge breadth/depth) and the speed with which it can respond.

Using corporate actions as an example, an announcement that details how a merger impacts replacement common shares may omit information on preferred shares. The use of social media tools (such as Twitter) could help expedite the investigation process by leveraging the network of operations professionals who are trying to get the answer to the same question. This already happens informally, to some degree; the technology simply speeds up the process by reducing communication delays and expanding the number of participants in the conversation. The less predictable the nature of an operational area due to dependence on nonstandard and/or unstructured information flows, the greater the impact a more collaborative operating model will have.

It is our view that financial services providers should act now if they do not want to be left behind in the development of virtual teaming models with collaborative tools. A first step in an action plan could be to conduct a future readiness assessment and benchmark the results against progress made by firms inside and outside financial services. We have begun work on such an initiative, which in our view will help companies identify and prioritize specific areas for creating virtual teams that work more productively using collaborative tools.

**Footnotes**


2 Approximately 25% of survey respondents are employed in the financial services sector, and the majority (60%) is based in North America.

Edward Merchant is a Vice President at Cognizant Business Consulting (CBC) and has over 30 years of experience defining and implementing operational processes and the supporting application architectures for complex, mission-critical functions. For the past 15 years, Ed has focused on the capital markets sector, where he has held positions both as a consulting practice director for leading services firms and as a CIO responsible for the capital markets divisions of a global financial institution. He holds a Master’s of Science, Mechanical Engineering from Fairleigh Dickinson University. Ed can be reached at Edward.Merchant@cognizant.com.

Gabriel Schild is a Director at Cognizant Business Consulting (CBC) based in Amsterdam, Netherlands. He has over 15 years of experience in operations and consulting for the financial services industry and is head of France, Benelux and Nordics for CBC Strategic Services. Gabriel holds an MBA from Thunderbird, the Graduate School of International Management in Phoenix, AZ. He can be reached at Gabriel.Schild@cognizant.com.
While change and adaptability to change have been constant for business over the years, one thing hasn’t changed: “The customer is always right.”

An increasing proportion of customers now fall into the 15- to 40-year age range, popularly known as Generation Y, or millennials. For this generation, expressing oneself and gaining acceptance via social networks is highly important. Millennials are increasingly participating in virtual communities like Orkut, Facebook and Twitter; social games and virtual worlds like Secondlife.com, World of Warcraft and Social Life; and social broadcasting like YouTube. With mobile phones supporting many social networks, socializing has never been so easy.

This explosion in social networking among millennials has moved the practice of sharing information to a more meaningful plane, one in which businesses can harness consumer preferences and insights to gain a competitive advantage. The sharing of information on social forums regarding opinions and experiences across various products and services has exploded and is now a key influencer in the decision-making process. This is in striking contrast with the traditional consumer experience, where customers visit stores and request information for a product and rely on the information provided by employees to make a buying decision. Instead, now they trust the advice of friends, colleagues, relatives and unknown fellow customers more than that of the organization and its employees. Thus, B2C (business to consumer) organizations need to realize and account for the fact that buying intent or brand positioning takes place much earlier than ever before.

B2C organizations have slowly started realizing that the traditional way of reaching out to the customer is changing fast, and social media is becoming a critical channel for connecting with the largest segment of their customers. This has given rise to the new discipline of CRM called social CRM (SCRM). SCRM pundit Paul Greenberg says, “Social CRM is engaging in a collaborative conversation with the customer in order to provide a mutually beneficial value in a trusted and transparent business environment.”

Listening, Learning and Lending

With the explosion in social networking, here’s how mortgage originators and servicers can embrace social CRM to make more compelling mortgage offers, improve processes, increase market share and proactively address customer service issues.

By Ashish Shreni, Sanjit Bose and Manab Mohanty
Even though organizations have started realizing the business importance of SCRM, few have made it an integral part of their larger marketing and process improvement efforts. Mortgage bankers that leverage SCRM will better understand consumer preferences and respond with offers and services that more appropriately serve their needs.

By employing an integrated and comprehensive SCRM approach, mortgage banks can leverage intelligence gained through social media to improve consumer perception, quality of service and market share.

Social Media Examples from Industry

Some B2C organizations have taken steps to reach out to customers through social media campaigns via sponsored Tweets, YouTube, Facebook, etc. and are tracking social sites (like Twitter) to monitor and assess feedback and requirements even before inquiries reach the customer service desk. Some examples of corporate use of social media include:

- Car manufacturers like Ford and GM publish news with interactive multimedia content to support new car research and development.

Percent of respondents using social networks.

Figure 1
Visa and HSBC have built business networks to connect a variety of key stakeholders like small business owners and entrepreneurs using blogs, videos and forums.

Global IT services firms such as IBM and Cognizant were among the first to embrace and encourage employee blogging.

SAP sponsored a global survey of social media professionals to learn more about social media worldwide.

Sears partnered with MTV to create a social network around back-to-school shopping.

Nationwide Mutual Insurance launched Yammer, a private secured application with functionality similar to Twitter for real-time communication among employees.

While these pioneering corporations have tapped social media as a customer communications channel, the overwhelming majority of companies have been slow to leverage social networking as an integrated and potent sales and marketing tool.

Key Challenges for Mortgage Players

No industry has been more under siege over the past few years than mortgage banking. Originators have experienced the "triple whammy" of declining volumes, tighter guidelines and repurchase demands. They need to differentiate in an increasingly competitive and commoditized market. Servicers, on the other hand, are reeling from an explosion in the volume of defaults and are hamstrung by antiquated systems and processes. They seek mechanisms to improve their operational processes and place borrowers in the right loss mitigation program at the right time. A visit to blogs that focus on mortgage issues reveals that:

- Prospective borrowers are asking for more information on services and products and are seeking feedback before deciding on a mortgage bank.
- Borrowers are not happy with their existing originator banks due to inadequate disclosure, communication or delays in responding to queries.
- Borrowers are not satisfied with their servicers for various reasons: Unclear guidelines on various loss mitigation programs, delays in modification processing, poor communication from servicers and a general lack of responsiveness.

Social CRM can provide originators and servicers with much-needed market intelligence, leads and insights, which can help increase market share and customer satisfaction and improve processes and services. By employing an integrated and comprehensive SCRM approach, mortgage banks can leverage intelligence gained through social media to improve consumer perception, quality of service and market share.

SCRM for Mortgage Banks

The main challenge for banks with most social media initiatives is the lack of long-term support by senior management, a lack of metrics to measure success and the ambition to try to do too many things concurrently. Thus, their social media campaigns often lack the back-end support needed to convert opportunities into profits, or their content is too long or boring, or their marketing lacks punch.

To be successful at leveraging social media to generate business benefits, a comprehensive strategy covering front-end, back-office and metrics to measure results is a must. The initiative should span all aspects of social networking, including creating social communities for interaction, positive communications, listening solutions, analytics and a strong back-office to convert this intelligence into action. Mortgage banks need to listen to the conversations happening in social media about their products, services and brands vis-à-vis others. This data, gathered from active listening, needs to be analyzed and converted into intelligence that can be incorporated into actions that help companies engage with
customers, expand markets, improve service delivery and deliver measurable results. In a mortgage industry context, the SCRM approach can be broadly classified into three components (see Figure 2).

- **Social community development**: Mortgage banks need to create social communities and engage with members to create positive sentiment and build trust. They can create focused communities with discussion forums, self-help groups and online chat capabilities to support various sub-groups, such as distressed home owners (DHOs), gather feedback, questions, suggestions, ideas, etc.
  - News publishing and awareness creation regarding loan offerings and loss mitigation programs.
  - Corporate branding and public relations.

- **Social media listening**: Banks should gather feedback, questions, suggestions, etc. through listening solutions and analyze these inputs to generate intelligence for devising consumer strategies. They can listen to user content in key mortgage social networking sites (such as loansafe.com, Reuters blogs, bankrate.com) to capture information on products, perceptions and services and use business intelligence tools to help formulate strategies to improve their products, services and communications. Ideas on strategy and implementation should also be gathered from all internal stakeholders through blogging, wikis and other forms of idea and content sharing, since the best ideas come from the grassroots level.

- **Program development**: Analyze information and design solutions to engage, retain and influence customers.
  - Product development: Design innovative products suitable for a specific group of mortgage customers.
  - Lead generation and segmentation: Feed marketing insights to the marketing and product group to design promotions, campaigns, surveys and product enhancements.
  - Process improvement: Effectively use feedback to improve servicing and origination processes.
  - Customer information management and profiling.
  - Improve customer service and issue resolution.

### The Phases of Social CRM

<table>
<thead>
<tr>
<th>Activity</th>
<th>Implementation Approach</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Community Development</td>
<td>Create social communities and engage with them to create positive sentiment and build trust.</td>
<td>Community creation and management: Build focused communities with discussion forums and self-help groups to support various customers like distressed home owners (DHOs), gather feedback, questions, suggestions, ideas, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>News publishing and awareness creation regarding loan offerings and loss mitigation programs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corporate branding and public relations.</td>
</tr>
<tr>
<td>Social Media Listening</td>
<td>Develop listening solutions for information capture and analysis.</td>
<td>Listen to the user-generated content in key mortgage social networking sites.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capture, process and cleanse info.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feed the social media insights into strong analytics and BI solutions. Convert raw data into opportunities and leads that can be harnessed and provide measurable results.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The output of the listening solution can also be integrated with CRM/customer applications.</td>
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<td>Compare current sentiment vs. historical sentiment and perform trend analysis.</td>
</tr>
<tr>
<td>Program Development</td>
<td>Analyze information and design solutions to engage, retain and influence customers.</td>
<td>Product development: Design innovative products suitable for a specific group of mortgage customers.</td>
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<td>Lead generation and segmentation: Feed marketing insights to the marketing and product group to design promotions, campaigns, surveys and product enhancements.</td>
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<td>Process improvement: Effectively use feedback to improve servicing and origination processes.</td>
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<td>Customer information management and profiling.</td>
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<td>Improve customer service and issue resolution.</td>
</tr>
</tbody>
</table>

**Figure 2**

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http://cognizant.com
Program development: Having a social media presence and interacting with borrowers are necessary, but not sufficient, to leverage SCRM to provide competitive advantage in the market. The SCRM infrastructure needs to feed consumer sentiments into a strong analytics and BI engine to convert raw data into opportunities and leads that can be harnessed to provide measurable results. The information captured through SCRM must be leveraged to boost sales and improve perception, products and services. Doing this requires three analysis functions: services analysis, product/brand analysis and sales analysis (see Figure 3).

Listening to and analyzing customer comments on various social networks can help identify potential customers and provide insights into products people are looking for or want banks to offer.

- **Services analysis:** Lenders can leverage information captured through SCRM tools and infrastructure to identify process gaps and inefficiencies in customer service and improve processes that will have maximum impact on enhancing customer experience. They will be surprised to learn that most of the complaints pivot on a lack of communication and clarity.

- **Product/brand analysis:** In mortgage originations, loss mitigation and servicing, positive publicity and brand image are as important as process excellence – and even more so today, when the progress and success of different modification programs are
under close scrutiny by borrowers, government, analysts and the industry. SCRM can help build positive brand image through community creation, awareness creation, corporate branding, public relation campaigns and crowdsourcing for new product and service development.

**Sales analysis:** With so much advertising noise and so many options, customer acquisition is a big challenge for lenders. Listening to and analyzing customer comments on various social networks can help identify potential customers and provide insights into products consumers are looking for or want banks to offer. This analysis will help in creating leads, cross-sell and up-sell, and launch new products that are already in demand.

Moving Forward

Demographic, social and behavioral shifts have implications for all businesses. This is even more important for businesses with high-touch interactions with their customers, such as the mortgage banking industry. As the Internet becomes a critical channel for information dissemination, access and customer interaction, borrowers are seeking more timely and meaningful insights on everything from property listings, to valuations, interest rates and glossary data. They crave content in a variety of formats, from straight text through video, and want more interactive forms of learning, offering feedback on products and services, and receiving communication from banks. In fact, the focus for banks’ online presence has moved away from real estate professionals and banking operations to the customer.

This shift has significant consequences for all stakeholders in the mortgage industry. Banks must adapt their strategies to this shift to stay competitive. They must leverage all forms of social media to their advantage and convey their value proposition in a consistent and persuasive fashion. This active strategy should include all tools and techniques in their SCRM arsenal that can convert the structured and unstructured data captured by social media (such as engaging borrowers in online conversations and offering tips and advice on home buying) into meaningful market insights. Home-buying decisions are usually a once-in-ten-years event for most customers, which requires transparency and responsiveness. Applying SCRM solutions effectively can go a long way to improving market perception, boosting sales, enhancing internal processes and building long-lasting relationships with customers.

*A version of this article was published in the April 6, 2011, edition of American Banker, under the headline, “Mortgage Lenders Need a Social (Media) Life.”*

Footnote

1 http://www.insideview.com/social-crm.html

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“Social Networking Use Exploding in Age Groups Targeted by Law Firms for Business Development,”
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